A PRELIMINARY STUDY OF THE *MEMBRACID Æ* DESCRIBED FROM AUSTRALIA AND TASMANIA.

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This paper has been prepared merely to show to the members of the Society what is known of this interesting family of insects, as represented in Australia and Tasmania, and to call attention to the fact that the writer has planned the preparation of a monograph when sufficient material has been examined.

The present paper is based wholly upon the published accounts of these variously formed species, and plainly shows what little attention has been paid to them.

Owing to the deficiency of the published descriptions, some half-dozen forms could not be included in the accompanying synopsis; otherwise it will be found to be accurate. However, the opinion is warranted that *Centrotus suffusa*, Walker, will prove to be a synonym of *Sextius virescens*, Fairmaire, and *Oxyrhachis contorta*, Walker, of *Daunus vitta* of the same author, while the other forms described under *Oxyrhachis* and *Centrotus* will be found to belong to some of the modern genera mentioned, or form types of new genera.

That the monograph may be a credit to the literature of Australian Entomology, I earnestly desire the co-operation of this Society.

PROVISIONAL CHECK-LIST OF THE DESCRIBED Membracidae of Australia and Tasmania.

Genus ACANTHUCUS, Stal.

1. A. trispiniferus, Fairm.-Hab. : New Holland; Tasmania.

2. A. gracilispinus, Stal.—Hab. : North Australia.

3. A. conspercatus, Stal.-Hab. : West Australia.

4. A. bispinus, Stal. - Hab. : Australia.

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Genus SEXTIUS, Stal.

- 5. S. virescens, Fairm.-Hab. : New South Wales; Tasmania.
- 6. S. bipunctatus, Fabr.-Hab. : New Holland.

Genus SERTORIUS, Stal.

- 7. S. australis, Fairm.-Hab. : New Holland; Tasmania.
- 8. S. curvicornis, Stal.-Hab. : Adelaide, Australia.

Genus TERENTIUS, Stal.

9. T. convexus, Stal.-Hab. : Rockhampton, Australia.

Genus DAUNUS, Stal

10. D. contractus, Walk.-Hab. : New Holland.

- 11. D. falcatus, Walk.-Hab. : Tasmania.
- 12. D. vitta, Walk.-Hab. : Tasmania (?).
- 13. D. Tasmania, Fairm.-Hab. : New Holland.

Genus (?) OXYRHACHIS, Germ.

- 14. (?) O. contorta, Walk.—Hab. : Tasmania.
- 15. (?) O. spinicornis, Walk.—Hab. : Moreton Bay.
- 16. (?) O. pondifer, Walk.—Hab. : Moreton Bay.

Genus (?) CENTROTUS, Fabr.

- 17. (?) C. acanthaspis, Fairm.—Hab. : Port Jackson.
- 18. (?) C. rufiventris, Walk.-Hab. : Moreton Bay.
- 19. (?) C. decisus, Walk.-Hab. : New Holland.
- 20. (?) C. monstrifer, Walk.-Hab. : Hunt [er] River.
- 21. (?) C. truncaticornis, Walk.-Hab. : Port Phillip.
- 22. (?) C. binotatus, Walk .- Hab. : New South Wales.

PROVISIONAL SYNOPSIS OF THE GENERA AND SPECIES OF Membracidæ described from Australia and Tasmania.

 S). Front entirely in one plane, not inflexed below juga, apex sometimes lightly reflexed; tiblæ simple.

2	(3).	Prothorax convex, unarmed above lateral
		angles; posterior process convex anteri-
		orly, tectiform and carinate posteriorly,
		broad at base, leaving free a very
		narrow part of the sides of scutellum;
		costal cell extended a little lengthily
		backward
		Pitchy, abdomen and legs yellowish-
		piceous; sides of chest densely
		gray, silky; tegmina vitreous,
		obscure at base, apex and costa
		dilute-piceous, radial and toward
		apex of ulnar veins and including
		veins and discoidal cells, blackish T_{i} convexus, Stal.
9	(9)	Prothorax horned above lateral angles;
*)	(-).	costal cell distinctly and very frequently
		extended far behind radial cell.
4	(~)	Lateral horns of prothorax acute or
÷	(,).	L L
		everywhere equally broad, wholly com-
		pressed, seen from front, apex not at
-	100	all broadened.
0	(6).	Dorsum of prothorax unarmed in front of
		posterior process and destitute of a
		distinctly elevated acute carina Genus SERTORIUS, Stal.
		a. Lateral horns represented by conical
		teeth S. australis, Fairm.
		aa. Lateral horns broad, curved, turned
		upward, posterior angle forming a
		little prominent tooth S. curricornis, Stal.
6	(5).	Dorsum of prothorax armed in front of
		posterior process with an erect, com-
		pressed process, or furnished with an
		acute, distinctly elevated carina Genus ACANTHUCUS, Stal.
		a. Lateral horns turned directly outward.
		b. Dorsum of prothorax furnished with
		a vertical spine A. trisipiniferus, Fairm.
		bb. Dorsum of prothorax destitute of a
		vertical spine A. bispinus, Stal.
		aa. Lateral horns not turned directly
		outward.
		c. Lateral horns turned forward and
		upward : median carina behind
		lateral angles elevated in an
		obtuse angle A. conspercatus, Stal.

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STUDY OF THE MEMBRACIDÆ,

 cc. Lateral horns turned obliquely outward and upward; dorsal horn long, acute and slender., 7 (4). Lateral horns of prothorax strongly turned upward, compressed toward the base, seen from front broadened and trun- cated toward apex	
b. Brown, golden pubescent; posterior process straight, slender, a little longer than abdomen; tegmina brown, apex clearer	D. tasmaniæ, Fairm.
 bb. Piceous pale, yellow pubescent; posterior process lightly undulating along superior surface, tapering to apex, which far surpasses apex of abdomen; tegmina piceous	D. contractus, Walk.
 c. Piceous, white pubescent; lateral horns almost erect, the tips slightly hooked; tegmina lurid, piceous cc. Piceous, tawny pubescent; lateral horns a little diverging, inclined a little forward: tegmina piceous, a ferruginous stripe extends from base along disc to apex, two 	D. falcatus, Walk.
short, brown stripes along pos- terior border	D. vitta, Walk.
 (1). Front below juga suddenly inflexed; prothorax either armed or unarmed above lateral angles; tibiæ dilated	
lowish-gray, a black spot on interior vein of clavus	S. bipunctatus, Fabr.

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DESCRIPTIONS OF THE SPECIES NOT INCLUDED IN THE SYNOPSIS.

Genus (?) ORYRHACHIS.

(?) O. contorta, Walk.—Long. $7\frac{1}{2}$ mm. Ferruginous-brown, thickly punctured. Prothorax armed with two thick, prismatic, slightly twisted, almost erect horns, which are slightly diverging and inclined forward, two carinæ in front; posterior process curved, very slender, acute at tip, which extends beyond abdomen, with a median carina. Abdomen and legs ferruginous. Tegmina whitish, with a ferruginous discal stripe, and two brown streaks along interior border; veins tawny; wings vitreous. Doubtless this is *Daunus vitta*, Walk. *Hab.*—Tasmania.

(?) O. spinicornis, Walk.—Q. Long. corp. 7 mm. Piceous. Prothorax punctured, with two thick, ascending, curved, diverging horns, slightly inclined forward, rudely reticulated toward apex, where they are armed with a spine on the outer side; furnished with a median carina; posterior process forming a spine which extends to apex of tegmina. Chest whitish on each side. Wings cinereous-hyaline, veins piceous. Probably acanthaspis, Fairm. Hab.—Moreton Bay.

(?) O. pondifer, Walk.—Q. Long. corp. 4 mm. Piceous. Prothorax punctured, forming an erect, thick horn, whose summit is much dilated posteriorly, and on each side, where it emits an acute, horizontal spine, with tips fulvous; posterior process gibbous in front, ending in a long, curved spine which has a pale yellow band at its base. Tarsi and tips of tibia pale. Tegmina brown, punctured at base and along costa; wings cinereous-hyaline.

Genus (?) CENTROTUS, Fabr.

(?) C. acanthucus, Fairm.—Long. 7 mm. Brown, punctured. Lateral horns of prothorax divergent, compressed, obtuse, broad; posterior process thick at base, notched at scutellum, sinuous beyond, curved inferiorly at apex, bisinuate below, longer than abdomen. Scutellum yellow. Head yellowish, with two glistening black spots above eyes. Tegmina transparent, a little fuliginous. Femora black, tibiæ yellowish. Belongs to the genus Sertorius, and is synonymous with decisus, Walk. Hab.—Port Jackson.

(?) C. rufiventris, Walk.—Q. Long. corp. 6 mm. Ferruginous, with thin, shining pubescence. Head minutely punctured, bordered, a black spot on each side between eyes and ocelli. Prothorax roughly punctured, inclined backward, a distinct median carina; lateral horns stout, conical, prismatic, diverging, slightly ascending, black toward tips [mutilated in the type]; posterior process slender, armed with two erect, high, compressed, conical, acute bumps, one at base, the other at middle; reaching tip of abdomen. Tegmina pale fulvous, punctured at base. Abdomen bright red, punctured, blackish towards base beneath. Legs ferruginous, femora striped with black. *Hab.*—Moreton Bay.

(?) C. decisus, Walk. $-\varphi$. Long. corp. 8 mm. Piceous. Prothorax roughly punctured, a slight median carina; lateral horns thick, prismatic, ascending, slightly diverging, conical, tips much rounded; posterior process far passing apex of abdomen, slightly curved, gradually attenuated to apex; sides of scutellum and chest tawny-pubescent. Tegmina lanceolate, piceous and punctured at base, ferruginous at base of costal border, veins ferruginous. Abdomen dark red, piceous at apex. Synonymous with acanthaspis, Fairm. Hab.—New South Wales.